

REMARKS:

Amdahl et al. (U.S. Patent No. 6,253,334)

In the Office Action, these independent claims were rejected under 35 U.S.C. 102(e) as being anticipated by Amdahl et al. The communication system to which Amdahl et al. is drawn may be explained with Fig. 1. In Fig. 1, a server 10 is communicating with client computers 14 and 16. The server 10 includes three network interface cards (NICs) 18, 20 and 22. (col. 5, lines 13-16). The NICs 18, 20 and 22 are respectively connected to routers 28, 30 and 32 through cables 34, 36 and 38. Amdahl et al. provides an interface switching scheme under which if the primary NIC 18 or cable 34 router 28 fails, network requests are routed through one of the secondary NIC 20 or 22. (col. 5, lines 29-35).

More specifically, the first NIC is analyzed to determine whether it is functioning properly, or is failing. If it is determined that it is not properly functioning, the NIC is disabled. (col. 5, lines 57-63). For this purpose, Amdahl et al. provides a NIC probing mechanism under which a probing module in the server sends probe packets from the primary NIC to all secondary NICs and from all secondary NICs to the primary NIC to monitor the status of the network link. If any packets are not received, the server determines which NIC failed by analyzing which packets were received which were not, and disables the NIC which is determined failed. The server thereafter monitors the deactivated NIC to determine if data packet reception begins to occur again on the deactivated NIC. (col. 9, lines 16-66). Once the server detects data packet reception on the deactivated NIC, it activates the NIC. (col. 10, lines 14-17).

The Present Invention

In the present application, claims 1, 6 and 13 are independent claims of record. These independent claims, along with some of their dependent claims, have been amended to make clear the distinctions between the present invention and Amdahl et al. In the above amendment, claim 1 has a new limitations to "judging whether to reestablish the interrupted communication" and "reestablishing communication without informing the data communication module of the interruption in communication, when it

is detected that communication is interrupted and it is judged, based on a cause for the interruption in communication, that communication should be reestablished." These limitations are also found in amended claims 6 and 13.

As discussed in the specification of the present invention, in one of the preferred embodiment, when a communication is interrupted, the communication control module in a data terminal receives an interruption response code from a DCE. The interruption response code functions to report to the communication control module that the communication has been interrupted, and the cause for the interruption. (See page 13, lines 3-8 of the present specification). In response, the communication control module determines, from the received interruption response code, whether the interrupted communication can be reestablished. (See page 13, lines 23-29 of the present specification).

On the other hand, Amdahl et al. is silent about an interruption of communication. By sending probe packets, it constantly monitors if the NCIs, cables and routers are properly functioning. If it finds a failure of any of the devices, it will replace the defective device with a substitute device before any communication is initiated through the device in order to provide prophylaxis against a communication failure. Thus, the present invention is patentable over Amdahl et al.

New Claims

In the above amendment, Applicants have added new claims 18-25, among which claim 18 is the only independent claim. Further to the remarks above, Applicants have a few remarks on the distinctions between claim 18 and Amdahl et al. Amdahl et al. is silent about a disruption of communication while the communication is in progress. Amdahl et al. is also silent about reporting the disruption to the data communication module, which is the upper communication protocol in Amdahl et al. More importantly, Amdahl et al. is silent about "when the disrupted communication is determined restorable, disguising the disruption from the data communication module while attempting to restore the communication." Therefore, new claims should also be patentable over Amdahl et al.

Ezaki (U.S. Patent No. 6,594,485)

Ezaki was filed in the U.S. on October 14, 1999. The priority of the present invention goes back to November 12, 1998. Therefore, Ezaki is not prior art against the present application. In this amendment, Applicants just point out that Ezaki is also silent about the above features of the present invention. However, if Ezaki is to be cited in the future, Applicants will submit a translation of the priority document to prove the priority.

Respectfully submitted,



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